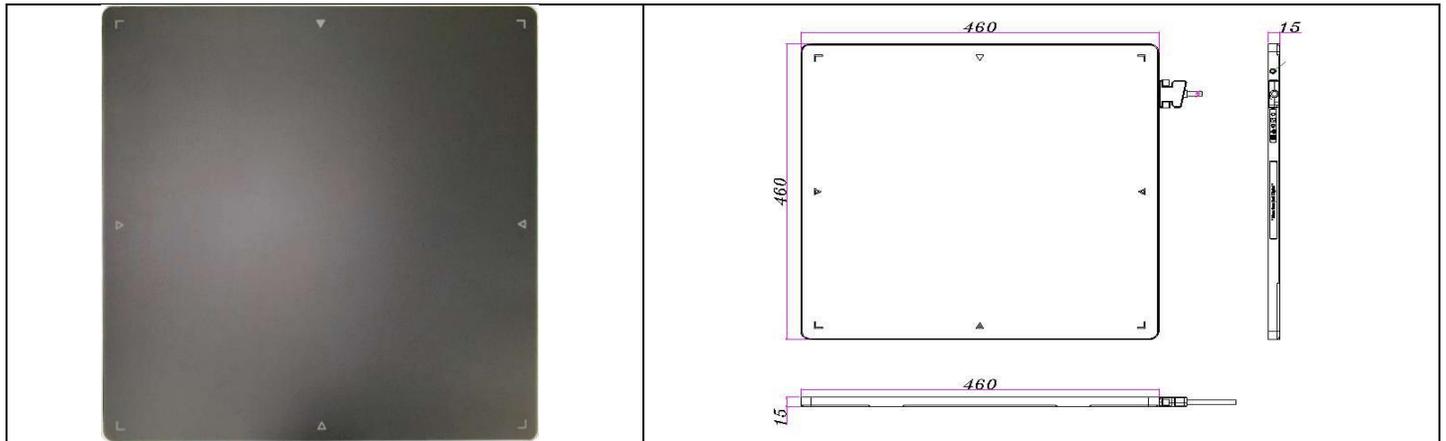


NX-4300

Industrial X-Ray Flat Panel Detector for NDT & Inspection Systems

ASTEL

NovaScan NX Series



Features

- ◆ Large Format (17x17) IGZO TFT Panel
- ◆ Static & Dynamic Imaging
- ◆ High Frame Rate for Real-Time Inspection, 30fps @ 1536x1536 with 3 x ROI
- ◆ Reliable AED Function
- ◆ Meeting ISO4090 Cassette Size (460x460x15mm)

Specification		NX-4300G	NX-4300C
Scintillator		GD ₂ O ₂ S:Tb	CsI:TI (Direct)
Sensor	Pixel size	140µm, IGZO TFT switch and a-si Photodiode	
	Pixel Matrix	3072 x 3072	
	Effective Area	430.08 x 430.08 mm	426.44 x 426.72
	Effective Array	3072 x 3072	3046 x 3048
Image	Spatial Resolution	3.4 lp/mm	
performance	ADC Resolution	16 bits	
	X-ray Voltage Range	40 ~ 150 Kvp	
	X-ray Generator	Line Trigger(Manual)/ Auto Trigger(AED Mode)	
	Shot Mode	Continuous/Pulsed	
Mechanical	Weight	GD ₂ O ₂ S:Tb / 3.4 Kg	CsI / 3.5 kg
	Dimensions	Meet ISO4090 cassette size(460x460x15mm)	
Maximum Frame Rate		11 fps @ 1x1 (3072 x 3072)	@10ms Pulse
		16 fps @ 1x1 (2048 x 3072)	@10ms Pulse
		22 fps @ 1x1 (2048 x 2048)	@10ms Pulse
		30 fps @ 2x2 (1536 x 1536)	@10ms Pulse
		36 fps @ 2x2 (1536 x 1024)	@10ms Pulse
		50 fps @ 4x4 (768 x 768)	@10ms Pulse
Communications	Wired	Giga Ethernet (1000BaseT)	
	Sync. Out Port	2 port / TTL(0-5.0V)	

NX-4300 Industrial Applications



The NovaScan NX series flat panel detector is engineered for deployment across all major industrial X-ray inspection sectors. Its combination of high resolution (3.4 lp/mm), wide energy range (40–150 kVp), and real-time imaging capability (up to 30 fps) makes it the ideal detector core for both static NDT and automated in-line inspection systems.

Industry Sector	Typical NDT / Inspection Applications
Aerospace NDT	Weld seam inspection of aircraft structures, turbine blade integrity verification, composite material analysis, fastener and rivet inspection
Automotive Manufacturing	Casting defect detection (porosity, shrinkage), weld quality verification, EV battery module cell inspection, light-alloy component NDT
Electronics & PCB	Solder joint inspection (BGA, QFP, SMD), wire bond analysis, component alignment verification, multi-layer PCB through-hole inspection
Oil & Gas / Pipeline	Pipeline girth weld inspection, corrosion under insulation (CUI) mapping, wall thickness measurement, pressure vessel NDT
Power Generation	Boiler tube inspection, steam turbine blade NDT, pressure vessel weld verification, nuclear component radiography
Foundry & Casting	Internal porosity detection, shrinkage cavity identification, inclusion mapping, sand casting quality verification
Food & Pharmaceutical	Foreign body detection (metal, glass, bone, stone), packaging seal integrity, fill-level inspection, contamination screening
Security & Screening	Airport baggage scanning, cargo container inspection, mail & parcel screening, customs and border inspection systems

System Integration Features

- ◆ Gigabit Ethernet (1000BaseT) for high-speed lossless image transfer to industrial PCs
- ◆ TTL Sync Output (2 ports) for hardware synchronisation with X-ray generators & conveyor systems
- ◆ Line Trigger / AED modes for manual or fully automated hands-free operation
- ◆ Continuous & Pulsed shot modes for real-time monitoring or high-resolution still capture
- ◆ SDK / API available for integration with SCADA, MES, and proprietary inspection software

OEM Solutions Available

ASTEL offers comprehensive OEM partnership programmes including: bare detector modules, custom firmware, private labelling / white-label branding, SDK integration kits, volume supply agreements, and dedicated technical training. Contact us for OEM partnership details.